

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number
WO 2005/057728 A1

(51) International Patent Classification⁷: **H01Q 23/00**,
9/04

Walter, Joseph [NL/NL]; Elzenlaan 4, NL-3465 TJ
Driebruggen (NL).

(21) International Application Number:
PCT/NL2004/000860

(74) Agent: **HOORWEG, Petrus, Nicolaas**; Arnold &
Siedsma, Sweelinckplein 1, NL-2517 GK The Hague
(NL).

(22) International Filing Date:
10 December 2004 (10.12.2004)

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(25) Filing Language: Dutch

(26) Publication Language: English

(30) Priority Data:
1025002 12 December 2003 (12.12.2003) NL

(71) Applicant (*for all designated States except US*): **STICHT-
ING NOBLE HOUSE** [NL/NL]; Heereweg 21, NL-2161
AC Lisse (NL).

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

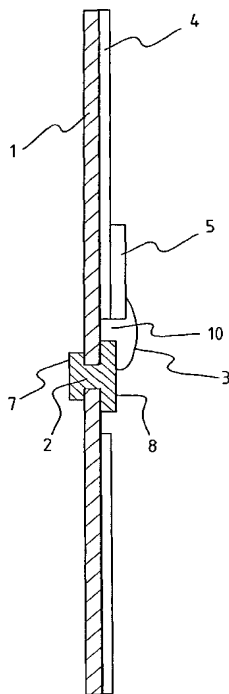
(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **DIJKSTRA, Patrick**,

[Continued on next page]

(54) Title: COUPLING FOR PATCH ANTENNAS

(57) Abstract: Device comprising a patch antenna, and coupling means for connecting the antenna to an electronic component, wherein the patch antenna is arranged on one side of an antenna plate, and the electronic component can be mounted on the other side of the antenna plate, wherein the coupling means comprise a metal passage through the antenna plate. This passage thus ensures the transmission of signals between the antenna and the electronic component. Such a passage is mechanically very robust and not susceptible to ageing, whereby this passage is suitable for automotive applications. This passage is generally not ideal, since it does not have the same characteristic impedance as the antenna and the electronic component, but the dimensions of the passage can be kept sufficiently small so that no disruption is encountered from this impedance mismatch.





ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

— *with amended claims*

Date of publication of the amended claims: 28 July 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.